

WHAT IS CLAIMED IS:

1. A user interface conversion system comprising a gateway wherein an integrated user interface is generated based on neutral user interfaces of devices residing on a home network and converted into a specific user interface suitable for a specific client of a user.

2. The system as claimed in claim 1, the gateway comprising:

a device collection unit for collecting the devices including the neutral user interfaces residing on the home network;

a device database for storing information on the devices collected by the device collection unit;

an integrated user interface generator for generating the integrated user interface based on the information on the devices stored in the device database; and

a user interface conversion unit for converting the integrated user interface generated from the integrated user interface generator into the specific user interface suitable for the specific client of the user.

3. The system as claimed in claim 2, the gateway further comprising a protocol unit that supports a protocol for searching for a one device residing on the home network.

4. The system as claimed in claim 2, wherein the information on the devices stored in the device database is meta information on the devices and URL information for accessing the neutral user interfaces.

5. The system as claimed in claim 2, wherein the integrated user interface is described with the neutral user interfaces, wherein the integrated user interface is converted into at least the specific user interface of a plurality of specific user interfaces.

6. A user interface conversion system supporting various devices, comprising:

a control device for controlling predetermined devices residing on a home network; and

a gateway for generating an integrated user interface based on neutral user interfaces of the devices residing on the home network at the request of a user for controlling the devices and converting the generated integrated user interface into a specific user interface supported in a specific client of the user.

7. A user interface conversion method supporting devices, comprising the steps of:

collecting the devices that include neutral user interfaces and reside on a home network;

extracting and storing information about the collected devices;

generating an integrated user interface based on the stored information about the devices; and

converting the generated user interface into a specific user interface supported in a client of a user.

8. The method as claimed in claim 7, wherein the information about the devices stored in a device database is meta information on the devices and URL information for accessing the neutral user interfaces.

9. The method as claimed in claim 7, wherein the integrated user interface is described with the neutral user interfaces, wherein the integrated user interface is converted into at least the specific user interface of a plurality of specific user interfaces.

10. A user interface conversion method supporting various devices, comprising the steps of:

(a) requesting, by a user, for a user interface supported in a user's own client;

(b) transmitting neutral user interfaces collected at the request of the user for the user interface;

(c) generating an integrated user interface based on the transmitted neutral user interfaces;

(d) converting the integrated user interface into a specific user interface supported in the client of the user;

(e) transmitting the converted specific user interface to the client of the user;

(f) displaying the integrated user interface converted into the specific user interface on the client of the user;

(g) selecting a desired device from the integrated user interface displayed on the client; and

(h) controlling the selected device.

11. The method as claimed in claim 10, wherein step (b) further comprises the steps of:

requesting an integrated user interface generator to transmit the neutral user interfaces at the request of the user, by a user interface conversion unit;

requesting a device collection unit to transmit the neutral user interfaces collected therein, by the integrated user interface generator; and

retrieving the neutral user interfaces collected in a device database, by the device collection unit.

12. The method as claimed in claim 10, wherein step (g) further comprises the steps of:

requesting a control device to transmit the neutral user interfaces of the devices selected by the user, by a user interface conversion unit;

transmitting the requested neutral user interfaces to a user interface generator, by the control device;

generating the integrated user interface based on the transmitted neutral user interfaces and transmitting the generated user interface to the user interface conversion unit, by the user interface generator;

converting the integrated user interface transmitted from the user interface conversion unit into the specific user interface supported in the client of the user; and

transmitting the converted specific user interface to the client of the user.

13. The method as claimed in claim 10, wherein the integrated user interface is described with the neutral user interfaces, wherein the integrated user interface is converted into at least the specific user interface of a plurality of specific user interfaces.

14. A computer-readable recording medium for recording a computer program code for enabling a computer to provide a service of converting interfaces in supporting various devices, the service comprising the steps of:

collecting the devices that include neutral user interfaces and reside on a home network;

extracting and storing information about the collected devices;

generating an integrated user interface based on the stored information about the devices; and

converting the generated user interface into a specific user interface supported in a client of a user.

15. The computer-readable recording medium of claim 14, wherein the information about the devices stored in a device database is meta information on the devices and URL information for accessing the neutral user interfaces.

16. The computer-readable recording medium of claim 14, wherein the integrated user interface is described with the neutral user interfaces, wherein the integrated user interface is converted into at least the specific user interface of a plurality of specific user interfaces.

17. A computer-readable recording medium for recording a computer program code for enabling a computer to provide a service of converting interfaces in supporting various devices, the service comprising the steps of:

(a) requesting, by a user, for a user interface supported in a user's own client;

(b) transmitting neutral user interfaces collected at the request of the user for the user interface;

(c) generating an integrated user interface based on the transmitted neutral user interfaces;

(d) converting the integrated user interface into a specific user interface supported in the client of the user;

(e) transmitting the converted specific user interface to the client of the user;

(f) displaying the integrated user interface converted into the specific user interface on the client of the user;

(g) selecting a desired device from the integrated user interface displayed on the client; and

(h) controlling the selected device.

18. The computer-readable recording medium of claim 17, wherein step (b) further comprises the steps of:

requesting an integrated user interface generator to transmit the neutral user interfaces at the request of the user, by a user interface conversion unit;

requesting a device collection unit to transmit the neutral user interfaces collected therein, by the integrated user interface generator; and

retrieving the neutral user interfaces collected in a device database, by the device collection unit.

19. The computer-readable recording medium of claim 17, wherein step (g) further comprises the steps of:

requesting a control device to transmit the neutral user interfaces of the devices selected by the user, by a user interface conversion unit;

transmitting the requested neutral user interfaces to a user interface generator, by the control device;

generating the integrated user interface based on the transmitted neutral user interfaces and transmitting the generated user interface to the user interface conversion unit, by the user interface generator;

converting the integrated user interface transmitted from the user interface conversion unit into the specific user interface supported in the client of the user; and

transmitting the converted specific user interface to the client of the user.

20. The computer-readable recording medium of claim 17, wherein the integrated user interface is described with the neutral user interfaces, wherein the integrated user interface is converted into at least the specific user interface of a plurality of specific user interfaces.